

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021721**Date Inspected:** 08-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above.

The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified as 10W/11W and the lifting lug holes identified below the following observations were made:

10W/11W

The QA Inspector randomly observed the ABF erection and welding personnel were performing fitting tasks at the top and bottom plates identified as A and D. The QA Inspector noted most of the fitting was being concentrated at plate D. The QA Inspector randomly observed the ABF welder Rick Clayborn arrived on the bridge from the welding at the pier to perform fitting tasks and install the fit gear at B, C, D and F plates. The QA Inspector noted no fitting was being actively performed at deck splice A on this date. The QA Inspector noted all of the longitudinal seams or weld reinforcement had been ground flush at the intersection of where the steel backing will be attached. The QA Inspector noted the welds are ground flush to allow for the steel backing to be in intimate contact with the back side of the weld joint.

6W-pp44-W4-1

The QA Inspector randomly observed the ABF welder identified as Mike Jimenez begin fitting up the lifting lug deck insert identified above. The QA Inspector noted the direction of rolling was stamped with a low stress stamp in the center of the insert plate, so no grinding or welding would mask or deface the identifying marking. The QA Inspector randomly observed the bevel angle to be 45°. The QA Inspector noted the surface of the bevel appeared to be a machined surface with bright shiny metal. The QA Inspector noted the ABF welder was utilizing a prefabricated round copper backing plate held in place with magnets. The QA Inspector noted the fit up was

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completed on the QA Inspectors shift and appeared to be in general compliance with the contract documents. The QA Inspector randomly observed the ABF welder begin the SMAW root pass. The QA Inspector randomly observed the SMAW parameters were 5/32" E7018 low hydrogen electrodes with 195 Amps for the root pass. The QA Inspector noted the parameters appeared to be in general compliance with ABF-WPS-1070A R1. After the SMAW root pass was completed the QA Inspector randomly observed the welder switch to 3/16" E7018 low hydrogen electrodes with 275Amps and used through the completion of the weld. The QA Inspector randomly observed the ABF welder did complete the above identified lifting lug hole on the QA Inspectors shift. It was noted the ABF welder did not remove the weld reinforcement of the QA Inspectors shift.

6W-pp40-W3-1&3

The QA Inspector randomly observed the ABF welder Darcel Jackson performing carbon arc gouging and back grinding of the above identified weld joints. The QA inspector randomly observed the ABF welder grind the back gouged weld joints to bright metal. The QA Inspector randomly observed the back gouged weld joints and noted they appeared to be in general compliance with the contract requirements. The QA Inspector randomly observed the SE QC Inspector Gary Ersham perform magnetic particle testing of the back gouged weld joint and noted no relevant indications were present at the time of the testing. The QA Inspector randomly observed the ABF welder continue welding the in process lift lug hole restoration of the lifting lug hole identified as #1. The QA Inspector noted the weld joint was approximately 50% complete at the time of the SMAW 4G back weld. The QA Inspector randomly observed the ABF welder continue the SMAW cover pass. The QA Inspector noted the ABF welder completed #1 and moved over to #3. The QA Inspector randomly observed the SMAW parameters were 1/8" E7018 low hydrogen electrodes with 125 Amps. The QA Inspector noted the parameters appeared to be in general compliance with ABF-WPS-1070A R1. The QA Inspector randomly observed the ABF welder did complete the above identified lifting lug hole on this date. The QA Inspector noted the weld reinforcement was ground flush on the QA Inspectors shift. The QA Inspector observed the grinding did appear to comply with the contract requirements for the lifting lug hole identified as #1 & #3.

The QA Inspector spent the remainder of the shift walking the top deck inside and out of the East and West bridge decks. The QA Inspector took field notes of the status of the production welding, and or NDT of the lifting lug deck hole restorations. The QA Inspector later transferred the data collected in the field to on site excel spread sheets or tracking logs for future references.

Summary of Conversations:

The QA Inspector was informed by the QA Inspector Jojo Lizardo that ABF was beginning to repair a R3 at 8W/9W-A5. The QA Inspector Jojo Lizardo informed the Lead QA Inspector Rick Bettencourt that SE QC Bonifacio Daquinag had informed him the repair was approved. The Lead QA Inspector asked the QC Inspector if he could provide the RWR number so Caltrans QA could verify the repair is approved. The QC Inspector could not provide the RWR number rather just stated the repair was approved. The QA Inspector was confronted by the SE Lead Leonard Cross, Mr. Cross said he would check his records to verify if the repair was previously approved. After several minutes of searching Mr. Cross informed the QA Inspector he did not have the repair procedure nor did he believe the repair had been submitted. Mr. Cross spoke with the ABF WQCM Jim Bowers who informed Mr. Cross to perform the measurements so the RWR could be submitted for approval. Mr. Cross informed the QA Inspector that the WCM informed him the RWR could not be found and would need to be submitted. Later the RWR was located and determined to be previously approved and was identified as RWR-201101-013.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Bettencourt,Rick
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Quality Assurance Inspector

Reviewed By:	Levell,Bill
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QA Reviewer
